

COUNTY OF SAN DIEGO HEALTH & HUMAN SERVICES AGENCY EMERGENCY MEDICAL SERVICES



COUNTY OF SAN DIEGO EMERGENCY MEDICAL SERVICES POLICY/PROCEDURE/PROTOCOL

SUBJECT: PEDIATRIC TREATMENT PROTOCOL - DYSRHYTHMIAS

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Date: 07/01/2018

BLS ALS

Monitor EKG

- Assess level of consciousness
- O₂ Saturation prn
- Determine peripheral pulses
- Ensure patent airway, O₂ and/or ventilate prn

Unstable Dysrhythmia:

<u>Includes heart rate as above and any of the following:</u>

o Poor Perfusion (cyanosis, delayed capillary refill, mottling)

OR

- o Altered LOC, Dyspnea **OR**
- o BP <[70+ (2 x age)] OR
- o Diminished or Absent Peripheral Pulses

Note: Suspected dehydration and/or fever may cause tachycardias >200/min.

- o Pulseless and unconscious, use AED if available. If pediatric pads not available, may use adult pads but ensure they do not touch each other when applied.
- o When heart rate indicates and patient is unstable, ventilate per BVM for 30 seconds, reassess HR and begin compression if indicated:

Heart rate: <9yrs HR <60bpm 9-14yrs HR <40bpm

- IV/IO <u>SO</u>
- Fluid bolus IV/IO per drug chart with clear lungs <u>SO</u>, MR to maintain adequate perfusion <u>SO</u>
- A. Unstable Bradycardia: Heart rate:

Infant/Child (<9yrs) <60bpm Child (9-14yrs) <40bpm

- o Ventilate per BVM for 30 seconds, then reassess HR prior to compressions and drug therapy.
- o Epinephrine 1:10,000 per drug chart IV/IO <u>SO</u>. MR x2 q3-5 minutes <u>SO</u>. MR q3-5 minutes <u>BHO</u>

After 3rd dose of Epinephrine:

o Atropine per drug chart IV/IO SO. MR x1 in 5 minutes SO

B. Unstable Supraventricular Tachycardia:

<4yrs <u>></u>220bpm <u>></u>4yrs <u>></u>180bpm

- o VSM per SO. MR SO
- o Adenosine per drug chart rapid IV <u>BHPO</u> follow with 20 ml NS IV
- o Adenosine per drug chart rapid IV <u>BHPO</u> follow with 20 ml NS IV
- o If no sustained rhythm change, MR x1 BHPO
- o Versed per drug chart IV prn precardioversion per BHPO
- o Synchronized cardioversion per drug chart** <u>BHPO</u>. MR per drug chart BHPO

C. Stable Supraventricular Tachycardia:

o Continue to monitor

D. Ventricular Tachycardia (VT):

- o 12 Lead to confirm
- o Contact BHPO for direction



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BLS ALS

- O₂ and/or ventilate prn
- CPR
 Begin compressions. After
 first 30 compressions, give
 first ventilations.
- Use AED if pulseless and unconscious, and AED is available. If pediatric pads not available, may use adult pads but ensure they do not touch each other when applied.

E. VF/pulseless VT:

- o Begin CPR. If arrest **witnessed** by medical personnel, perform CPR until ready to defibrillate. **If unwitnessed arrest, perform CPR x2 min.**
- o Defibrillate per drug chart** SO
- o Resume CPR for 2 minutes immediately after shock
- o Perform no more than 5 second rhythm check, and pulse check if rhythm is organized
- o Defibrillate per drug chart** for persistent VF/pulseless VT prn SO
- o Continue CPR for persistent VF/pulseless VT. Repeat 2 minute cycle followed by rhythm/pulse check, followed by defibrillation/medication, if indicated.
- o IV/IO SO. Do not interrupt CPR to establish IV/IO.

Once IV/IO established, if no pulse after rhythm/pulse check:

- o Epinephrine 1:10,000 per drug chart IV/IO MR x2 q3-5 minutes SQ. MR q3-5 minutes BH©
- o After 1st shock if still refractory
- o Amiodarone per drug chart IV/IO MR x1 in 3-5 minutes <u>SO</u> OR
- o Lidocaine per drug chart IV/IO MR x1 in 3-5 minutes SO
- o BVM
- o Avoid interruption of CPR
- o Capnography monitoring SO
- o NG/OG prn SO

Note: For patients with a Capnography reading of less than 10 mm/Hg or patients in nonperfusing rhythms after resuscitative effort, consider early Base Hospital contact for disposition/pronouncement at scene.

- Medication should be administered as soon as possible after rhythm checks. The timing of drug delivery is less important than is the need to minimize interruptions in chest compressions.
- Flush IV line with Normal Saline after medication administration
- CPR should be performed during charging of defibrillator
- Use metronome rate of 110 for CPR

^{**}Or according to defibrillator manufacturer's recommendations



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BLS ALS

- O₂ and/or ventilate prn
- CPR
 Begin compressions. After first 30 compressions, give first ventilations.
- F. Pulseless Electrical Activity (PEA)/Asystole:
 - o Perform CPR x2 minutes
 - o Perform no more than 5 second rhythm check, and pulse check if rhythm is organized
 - o CPR for 2 minutes
 - o IV/IO SO. Do not interrupt CPR to establish IV/IO.

Once IV/IO established, if no pulse after rhythm/pulse check:

- o Epinephrine 1:10,000 per drug chart IV/IO. MR x2 in q3-5 minutes SO. MR q3-5 minutes BHO
- o Fluid per drug chart IV/IO SO may repeat x1
- o BVM
- o Capnography monitoring SO
- o NG/OG prn SO
- o Pronouncement at scene BHPO

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